

JOINT SUPPRESSION OF ENEMY AIR DEFENSES JOINT TEST AND EVALUATION

BACKGROUND PAPER

Subject: Joint Suppression Of Enemy Air Defenses (JSEAD) Joint Test And Evaluation (JT&E)

Program sponsor: Department of the Air Force

Background: This is an OSD, DD,DT&E/S&TS sponsored JT&E.

Test Background: Since the 1991 Gulf War, the predominant joint suppression of enemy air defenses (JSEAD) strategy has been to preemptively destroy an enemy's integrated air defense system (IADS). Opponents of the US have denied this strategy in recent operations by distributing command and control, reengineering previously fixed assets for greater mobility, hiding air defense elements, and moving those assets frequently to prevent attacks. As a consequence, US commanders require effective reactive JSEAD capabilities to reduce interference from enemy air defenses to levels that permit effective joint operations at acceptable risk levels. Two other developments complicate this situation: the number of US assets dedicated to reactive JSEAD has shrunk, and surface-to-air missile systems with unprecedented sophistication and reach have become available in the global weapons market. On 27 September 1996, the Office of the Under Secretary of Defense, Deputy Director for Test and Evaluation (Acquisition and Technology), chartered JSEAD to accomplish the objectives detailed in the next paragraph.

Purpose: Characterize the reactive (localized) JSEAD targeting process, quantify element contributions to that process, baseline current capabilities, identify deficiencies, and test and evaluate potential improvements.

Program Organization: Joint Test Force organized under a standard J-structure with J-8 assigned analysis responsibilities and J-9 responsible for data collection and management.

Test Approach: The JTF surveyed command and control architectures worldwide, established a generic model of the JSEAD reactive targeting process so that test results could be applied in any command, and designed baseline and best-of-breed enhanced processes for reactive JSEAD targeting. Mission performance was measured during a computer-assisted exercise and a live-fly exercise in 1998. Based on analysis of test results and combat results from Operations NORTHERN WATCH, SOUTHERN WATCH and ALLIED FORCE, the JTF designed selected enhancements to improve combat performance. The JTF refined these concepts in a series of three mini-tests to ensure maturation for live-fly testing. Actual performance of the enhanced reactive JSEAD targeting process was measured in a live-fly exercise conducted from 26 August to 8 Sep 00.

Accomplishments: Test results from 1998 tests were promulgated to key staff responsible for Operation NORTHERN WATH, Operation ALLIED FORCE and other recent combat operations. Specific deficiencies identified in 1998 test analysis have been corrected, resulting in improved information and intelligence quality available to warfighters worldwide. JSEAD 1998 test results were provided to numerous decision-makers and intelligence system program offices. Preliminary results from JSEAD's September 2000 test indicate system managers have acted on the test data to improve specific mission capabilities. JSEAD has also tested the primary fusion tool fielded worldwide, GALE Lite, determined previously unidentified ways of improving its contribution to intelligence and combat decisions, and detailed the improved procedures for operational implementation.

Planned Activities: The JSEAD JTF will complete reconstruction, analysis and reporting of its test and program results in FY 01.

Legacy Products: In addition to its program report, the JSEAD JTF will contribute recommendations to doctrine and tactics manuals, assist organizations with similar missions in crafting tests and mission architectures, provide advanced concepts of operations to responsible commands, and brief decision-makers in OSD, the Services and the Unified Commands.

Summary

Proliferation of advanced air defense systems, coupled with increased threat mobility, greater engagement range, reduced engagement time, and sophisticated command and control presents new challenges to US reactive JSEAD targeting. The JT&E objective is to improve the warfighters' near-term reactive JSEAD capability. Reactive targeting depends on timely, accurate, and complete mission information. The JSEAD JT&E has tested JSEAD enhancements that have the potential to improve targeting against other types of time-critical targets. The test focused on increasing the velocity and effectiveness of joint ISR products, intelligence processing and analysis, and decision processes. Combined, these improvements should provide a more recent, higher fidelity battle picture and improve targeting of enemy air defenses.

Points of Contact:

Test Director, Col C. M. Westenhoff, USAF, (702) 652-7418, westenhoffc@jsead.com
Vice Test Director, CAPT John Dinger, USN, (702) 652-7418, dingerj@jsead.com

WebSite www.acq.osd.mil/te/programs/jte contains additional information on the JT&E Program.